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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,129

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EXAMINER

HOANG, PHI

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,129	Applicant(s) LIND ET AL.	
	Examiner PHI HOANG	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20 October 2006 and 21 July 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

3DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because of the following informalities: the word "is" is repeated twice in a row.

Claim 22 is objected to because of the following informalities: the word "user;" is repeated twice in a row.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 6, 7, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi (US 2002/0150287 A1).

4. Regarding claim 1, Kobayashi discloses a method of forming an approximation of a 3-dimensional image of a first object using images obtained of said first object, the method including the steps of; (i) obtaining a plurality of images of a first object from multiple positions about a substantially horizontal plane; (Page 3, paragraph 0055)

(ii) creating foreground and background layers of the first object within said image; (Page 5, paragraphs 0076 – 0078 and figures 7A and 7B, hair generated that is

behind another generated hair is understood to be background and hair generated that is in front of another generated hair is understood to be foreground)

(iii) forming a 3-dimensional image of said first object from the images obtained;
(Page 4, paragraph 0062 and 0063)

and (iv) converting said 3-dimensional image obtained into a desirable format for compositing purposes (Page 4, paragraph 0064).

5. Regarding claim 2, Kobayashi discloses the first object is a hair style prepared on a model head (Page 4, paragraph 0064)

6. Regarding claim 4, Kobayashi discloses the creation of foreground and background layers is completed through executing the steps of: (a) cropping the hair out of each image; (Page 4, paragraph 0066)

(b) loading the cropped hair images into an alignment process; (Page 4, paragraph 0069)

and (c) defining foreground and background hair layers within each image (Page 4, paragraph 0075, similar to figures 7A and 7B, coordinates of hair that are visible would represent foreground hair while coordinates of hair behind the foreground would be background).

7. Regarding claim 6, Kobayashi discloses hair layers are defined by following perspective lines in the hair style (Page 6, paragraph 0096).

8. Regarding claim 7, Kobayashi discloses the hair style to be represented is feathered to obtain a smooth transition between the layers defined (Page 8, paragraph 0128).

9. Regarding claim 18, Kobayashi discloses a method of compositing multiple images to form an approximation of a 3-dimensional image, said method being characterized by the execution of the steps of: a. obtaining a 3-dimensional image of a first object converted into a desirable format; (Page 3, paragraph 0058, "a hair-style database 7 in which a plurality of hair-style data items are previously recorded")

b. obtaining a 3-dimensional image of a second object, the second object including a face; (Page 3, paragraph 0055, "obtain a three-dimensional shape of the face part")

and c. combining each of the corresponding pixels of the images of the first and second objects (Page 4, paragraphs 0069 and 0070).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 2002/0150287 A1) in view of Tsujita et al. (US 2002/0138008 A1).

12. Regarding claim 3, Kobayashi discloses all limitations as discussed in claim 1.

Kobayashi does not disclose background layer image content is extrapolated using a reflected copy of an opposed image.

Tsujita discloses extrapolating new image values from a reflection image (Page 26, paragraph 0288).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kobayashi to use the technique of extrapolation an image from a reflected one because new image values can be calculated and displayed based on current available image data.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 2002/0150287 A1) in view of Ostermann (US 2002/0030678 A1)

14. Regarding claim 5, Kobayashi discloses all limitations as discussed in claim 1.

Kobayashi does not disclose (d) animating said plurality of images to identify alignment inconsistencies between images.

Ostermann discloses using animation to match alignment using animation (Page 2, paragraph 0015).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kobayashi to use animation in order to align objects as disclosed by Ostermann because proper alignment can avoid inconsistencies.

15. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 2002/0150287 A1) in view of Kobayashi et al. (US 6,351,266 B1).

16. Regarding claim 8, Kobayashi discloses all limitations as discussed in claim 1.

Kobayashi does not clearly disclose alpha-blending process is applied to a foreground layer of an image.

Kobayashi et al. discloses alpha-blending process is applied to a foreground layer of an image (Column 3, lines 27-35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kobayashi to use alpha-blending on an image as disclosed by Kobayashi et al. because alpha-blending allows for a more realistic color to appear when two different colors interact.

17. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 2002/0150287 A1) in view of Phillips (US 2003/0157928 A1).

18. Regarding claim 9, Kobayashi discloses all limitations as discussed in claim 1.

Kobayashi does not disclose the images converted into a format desirable for compositing are stored in an electronic file format which stores a plurality of sequential images from a common layer within a single file.

Phillips discloses the images converted into a format desirable for compositing are stored in an electronic file format which stores a plurality of sequential images from a common layer within a single file (Page 2, paragraph 0022).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kobayashi to store images in a single file such as an animated GIF as disclosed by Phillips because the file can be retrieved for viewing at a later point in time.

19. Regarding claim 10, Kobayashi in view of Phillips (Page 2, paragraph 0022) discloses the file format selected stores uncompressed pixel data.

20. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over (US 2002/0150287 A1) in view of Ikegami (US 2001/0026377 A1).

21. Regarding claim 11, Kobayashi does not clearly disclose a file is stored for each layer present in the 3-dimensional image of the first object.

Ikegami discloses a file is stored for each layer present in the 3-dimensional image of the first object (Page 21, paragraph 0328).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kobayashi to save images at different layers as separate files as disclosed by Ikegami because separate files allows for editing a layer as a separate image does not impact the other layers.

22. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 2002/0150287 A1) in view of Lakshman (US 2002/0091918 A1)

23. Regarding claim 19, Kobayashi discloses all limitations as discussed in claim 18.

Kobayashi discloses a system for retrieving hair-style data from a database for compositing with facial data to form an image using client side software applications (Page 3, paragraph 0058 and page 4, paragraph 0068).

Kobayashi does not disclose the resulting composite 3-dimensional image is delivered to a remote user using a client software application via a computer network and a server software application.

However, it is well known that data can be transmitted to a client system via network from server system as disclosed by Lakshman (Page 1, paragraph 0005).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kobayashi to transmit 3-dimensional image data using a network and a client-server model as disclosed by Lakshman because multiple client systems can run the same application from a server rather than locally thus saving resources.

24. Regarding claim 20, Kobayashi (Page 4, paragraphs 0069-0071) in view of Lakshman (Page 1, paragraph 0005) discloses the composite 3-dimensional image is generated by a server software application and transmitted to a remote client software application.

25. Regarding claim 21, Kobayashi in view of Lakshman (Page 1, paragraph 0005) discloses the server software application is adapted to execute the steps of; a. retrieving a 3-dimensional image of a hair style, and retrieving a 3-dimensional image of a face; (Kobayashi, page 3, paragraph 0058)

b. taking an initial pixel from the foreground hair layer image, an initial corresponding pixel from a face image and an initial corresponding pixel from a background hair layer image and combining them; (Kobayashi, page 4, paragraph 0069)

and c. repeating step b. for all subsequent pixels of the corresponding image of the hair style and the corresponding image of the face (Kobayashi, page 4, paragraph 0069).

26. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 2002/0150287 A1) in view of Lakshman (US 2002/0091918 A1) and further in view of Hamilton (US 2002/0131645 A1).

27. Regarding claim 22, Kobayashi in view of Lakshman discloses all limitations as discussed in claim 21.

Kobayashi in view of Lakshman discloses repeating steps b. to c. for all subsequent images of the hair style and the face.

Kobayashi in view of Lakshman does not clearly disclose the server software application is adapted to execute the steps of: d. compressing the resultant composite image and transmitting it to a user.

However, it is well known to use a compression algorithm to reduce the image data file size to reduce data bandwidth usage over a network as disclosed by Hamilton (Page 1, paragraph 0002).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kobayashi in view of Lakshman to compress

composite images transferred over a network as disclosed by Hamilton because bandwidth consumption is reduced as well as download times.

28. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 2002/0150287 A1) in view of Lakshman (US 2002/0091918 A1) and further in view of Phillips (US 2003/0157928 A1).

29. Regarding claim 23, Kobayashi in view of Lakshman discloses all limitations as discussed in claim 21.

Kobayashi in view of Lakshman discloses repeating steps b. to c. for all subsequent images of the hair style and the face.

Kobayashi in view of Lakshman does not disclose d. storing of the resultant composite image for compilation into an animated format.

Phillips discloses d. storing of the resultant composite image for compilation into an animated format (Page 2, paragraph 0022).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kobayashi to store images in a single file such as an animated GIF as disclosed by Phillips because the file can be retrieved for viewing at a later point in time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHI HOANG whose telephone number is (571)270-3417. The examiner can normally be reached on Mon-Fri, 8:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on 571-272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Phi Hoang/
Examiner, Art Unit 2628
July 29, 2008

/XIAO M. WU/
Supervisory Patent Examiner, Art Unit 2628